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COVID-19 vaccinations among Black Asian and Minority Ethnic (BAME) groups: Learning the lessons from influenza

Abstract

Background: The COVID-19 vaccination roll-out continues to grow at significant pace around the world. There is, however, growing concern regarding vaccine hesitancy amongst Black, Asian and Minority Ethnic (BAME) populations. Such inequalities have the potential for exposing, an already at-risk population, further. Whilst the COVID-19 vaccination programme is in its infancy, influenza programmes have been undertaken for over 50 years, and may provide invaluable insights. In this commentary, we aim to examine the lessons from influenza vaccinations, and how this can help reduce inequalities with COVID-19 vaccinations.

Main Text: Several factors have been associated with both seasonal and pandemic influenza vaccine hesitancy amongst BAME groups. One of the most prevalent barriers in both types of immunisation programmes is the mistrust of medical organisations. This is often a multi-faceted issue, with previous negative healthcare discrimination, and historical unethical practices contributing towards this scepticism. This mistrust, however, is predominantly aimed towards healthcare systems, as opposed to individual physicians. In fact, physician endorsement is often a strong driver to vaccination, with Black patients who receive this support 8 times more likely to receive seasonal influenza vaccination. On the other hand, with H1N1 pandemic influenza vaccination, social norms or community influence, was an important determinant. In both seasonal and pandemic immunisation programmes, a significant amount of concern regarding side-effects, including misinformation, was reported amongst BAME groups.

Conclusions: The use of community-based approaches, with local advocacy, has the potential to counteract misinformation, and concerns regarding side-effects. Moreover, using consistent physician endorsement not only in media campaigns but also through messaging would potentially help to address longstanding healthcare mistrust amongst minority ethnic groups. Close attention regarding how the vaccination programme, and the health policies introduced as a consequence, affect BAME communities in order to prevent widening inequalities in the future.

The COVID-19 vaccination roll-out continues to grow, with over 25 million people in the United Kingdom having received the first dose.[1] There is, however, increasing evidence of vaccine hesitancy amongst the Black, Asian and Minority Ethnic (BAME) populations. In one dataset amongst those aged 80 years or older, 95.2% of white patients have been vaccinated, compared with only 68.4% of black patients.[2] Furthermore, some of the UK's National Health Service (NHS) hospitals have reported the odds of uptake are 70% lower amongst black than white healthcare workers, despite their significant exposure.[3] These trends are concerning, especially as COVID-19 and the response to it, has exacerbated longstanding inequalities amongst minority ethnic groups, which may take years to recover.[4] By not addressing these disparities promptly, the hardest hit populations may suffer further. Moreover, the prevalence of variant strains, and the potential for recurring boosters, has meant tackling these inequalities must now be a priority.[5]

Addressing these issues, however, remains a challenge. Whilst there is work highlighting misinformation to BAME groups, interventions designed to overcome the specific barriers faced by these communities remain scarce.[6] Underpinning this, is the relative infancy of the COVID-19 vaccination programme, meaning the determinants of vaccine hesitancy have not been fully understood.[7] Whilst data surrounding this field grows, we must learn lessons from existing vaccination programmes to inform current strategies. Running for over 50 years, and with an annual uptake of 1.5 million doses in the United Kingdom, the seasonal influenza programme can provide significant insights in this area.[8] Not only is this information pertinent regarding barriers during a pandemic, as with H1N1 (also known as Swine Flu) in 2009, but also longer term behaviours. The latter being of increasing importance, as governments look to procure COVID-19 vaccines beyond 2021.[9]

From our research into influenza vaccination hesitancy amongst BAME groups, we have identified several key themes that could be translated to COVID-19. One of the most prevalent barriers to seasonal vaccination was mistrust of medical, or pharmaceutical organisations. Like influenza, mistrust is now being highlighted as a significant barrier to COVID-19 vaccination.[10] These issues are often multi-faceted. In a 3-month cross-sectional UK study by *Impact on Urban Health* previous healthcare discrimination, and historical unethical medical practice, both contributed to current vaccine hesitancy amongst majority Black communities in South London, who were more likely to be negatively impacted by COVID-19.[11] This scepticism appears aimed at healthcare systems as a whole, as opposed to individual physicians. For example, physician endorsement is often cited as a strong driver to uptake. This technique involves

an individual's doctor, either verbally or in text, demonstrating their support for the vaccine and promoting it to a patient. In fact, the odds of influenza vaccination uptake were found to be 8 times higher in one questionnaire study of Black heart failure patients in an urban US city who received a doctor's recommendation, compared with those who did not.[12] Furthermore, physician endorsement can be feasibly incorporated at scale to increase widespread uptake, as evidenced by cancer screening programmes.[13] On the other hand, the perceptions of those in the local community, was cited as a strong facilitator to H1N1 vaccination uptake amongst in one study of a multi-ethnic community including Black, Asian and Hispanic adults. This suggests the importance of social norms, or culturally accepted behaviours, in these acute circumstances.[14] It also indicates the potential for community-based approaches addressing the group's beliefs on vaccination to be effective.

In addition, the perception of vaccine side-effects was found to be a considerable barrier to uptake, with both seasonal and H1N1 vaccination amongst black and hispanic patients compared with their white counterparts.[15] Concerningly, whilst this encompasses accepted effects such as pain, it also included misinformation regarding the vaccine causing the disease. This is likely further compounded by language barriers, and public health measures including lockdowns, in which access to healthcare resources is restricted. Tackling such misinformation, is however, not just about improving access to reliable resources but also understanding the public concerns underpinning these beliefs.[16]

As such, the authors believe the following recommendations will help to prevent widening inequalities amongst BAME patients:

1. Prioritise community approaches to foster trust amongst BAME groups. Whilst developing de novo relationships may be difficult, leveraging existing collaborations with trusted community leaders, faith groups and centres may help reduce mistrust and improve collective perceptions of vaccination. Practical steps such as vaccination hubs to allow people to be vaccinated in their community, and to act as role models are important, especially for those who have previously experienced discrimination in healthcare settings.
2. Utilisation of healthcare endorsement, not only through media campaigns but also through messaging invitations. These can be worked into the existing primary and secondary care infrastructure. It is however critical that the impact of messaging, and any policy, upon BAME groups is closely monitored, as there is potential for inequalities to be worsened by these measures.
3. Ensure we continue to monitor and prioritise uptake amongst these groups, even after the immediate threat posed by COVID-19 has receded. While the UK vaccine roll-out has focussed on numbers, a failure to engage with and vaccinate BAME groups should be deemed a failure of this, and *any* vaccination scheme.

DISCLOSURE

The authors declare no competing or conflicting interests.

AUTHOR CONTRIBUTIONS

AA and KL equally conceptualised the piece, undertook data collection and manuscript writing. Both are considered first authors. SD and HA also helped in manuscript generation, as well as curating literature resources to undertake the work. AD provided infrastructural and funding support that enabled the work to be conducted and manuscript produced.

ETHICAL APPROVAL

As this commentary presents findings from pre-published articles, the need for formal Institutional Review Board approval was waived.

CONSENT FOR PUBLICATION

No patients or members of the public were enrolled. All authors have consented to publication of the article.

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DATA AVAILABILITY STATEMENT

The datasets used and/or analysed during this study are available from the corresponding author on reasonable Request.

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REFERENCES

1. Gov.uk. *Coronavirus in the UK*. Online. 18/03/2021. https://coronavirus.data.gov.uk/details/vaccinations. Accessed March 18, 2021.
2. OpenSAFELY. *NHS COVID-19 Vaccine Coverage weekly report*. Online. 15/03/2021/. http://opensafely.org/research/2021/covid-vaccine-coverage/#weekly-report. Accessed March 18, 2021.
3. Martin CA, Marshall C, Patel P, et al. Association of demographic and occupational factors with SARS-CoV-2 vaccine uptake in a multi-ethnic UK healthcare workforce: a rapid real-world analysis.*medRxiv*. 2021. [Preprint.] https://doi.org/10.1101/2021.02.11.2125154
4. Sze S, Pan D, Nevill CR, et al. Ethnicity and clinical outcomes in COVID-19: a systematic review and meta-analysis. *EClinical Medicine*. 2020;29:100630.
5. Bernal JL, Andrews N, Gower C, et al. Effectiveness of COVID-19 vaccines against the B.I.617.2 variant. *medRxiv*. 2021. [Preprint]. https://doi.org/10.1101/2021.05.22.21257658
6. The Guardian. *Adil Ray, Moeen Ali and Meera Syal among BAME celebrities to lambast vaccine misinformation – video*. Online. 25/01/2021. https://www.theguardian.com/world/video/2021/jan/25/adil-ray-moeen-ali-meera-syal-bame-celebrities-lambast-vaccine-misinformation-video. Accessed March 15, 2021.
7. Coustasse A, Kimble C, Maxik K. COVID-19 and vaccine hesitancy a challenge the United States must overcome. *Amb Care Manage*. 2021;44:71-75.
8. Public Health England. *Seasonal flu vaccine uptake in GP patients: monthly data, 2019 to 2020*. Online 26/03/20. https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-gp-patients-monthly-data-2019-to-2020. Accessed March 14, 2021.
9. Gov.uk. *UK Government secures additional 40 million doses of Valneva vaccine*. Online. 01/02/21. https://www.gov.uk/government/news/uk-government-secures-additional-40-million-doses-of-valneva-vaccine. Accessed March 15, 2021.
10. Thompson HS, Manning M, Mitchell J, et al. Factors associated with racial/ethnic group=based medical mistrust and perspectives on COVID-19 vaccine trial participation and vaccine uptake in the US. *JAMA Netw Open*. 2021;4:e2111629.
11. Impact Urban Health. *Understanding the experiences and perspectives of people more likely to be negatively impacted by COVID-19*. 2021. Online. https://www.tsip.co.uk/case-studies/covid19insightgathering. Accessed March 18, 2021.
12. Olanipekun T, Effoe VS, Olanipekun O, et al. Factors influencing the uptake of influenza vaccination in African American patients with heart failure: findings from a large urban public hospital. *Heart Lung*. 2020;49:233-237.
13. Huf S, King D, Kerrison R, et al. Behavioural text message reminders to improve participation in cervical screening: a randomised controlled trial. *Lancet*. 2017;390:S46.
14. Frew PM, Painter JE, Hixson B. Factors mediating seasonal and influenza A (H1N1) vaccine acceptance among ethnically diverse populations in the urban south. *Vaccine*. 2012;30:4200-4208.
15. Uscher-Pines L, Maurer J, Harris KM. Racial and ethnic disparities in uptake and location of vaccination for 2009–H1N1 and seasonal influenza. *Am J Pub Health*. 2011;101:1252-1255.
16. Rosenbaum L. Escaping catch-22 — overcoming covid vaccine hesitancy. *NEJM*. 2021;384:1367-1371.

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